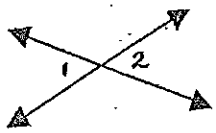
Support the following statements with a property or a postulate.

13. If a = b then b = a
14. If m<2 = m<1 and m<1 = m<5, then m<2 = m<5
15. If C is between A and B then AB = AC + BC
16. If m<1 + m<2 = m<A, then m<1 = m<A - m<2
17. m<F = m<F

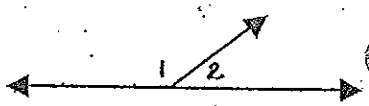
Solve for the measure of each angle. State the relationship and show work !

18. $m\angle 1 = 5x - 7$
$m\angle 2 = 3x + 5$



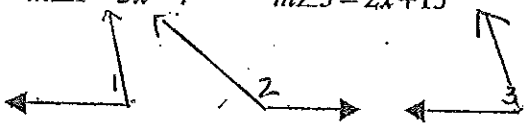
$m\angle 1 =$ _____ $m\angle 2 =$ _____

19. $m\angle 1 = 3x$
$m\angle 2 = x$



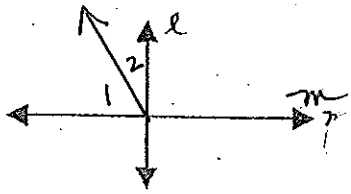
$m\angle 1 =$ _____ $m\angle 2 =$ _____

20. $\angle 1$ is supplementary to $\angle 2$
$\angle 2$ is supplementary to $\angle 3$
$m\angle 1 = 3x - 7$ $m\angle 3 = 2x + 13$



$m\angle 1 =$ _____ $m\angle 2 =$ _____

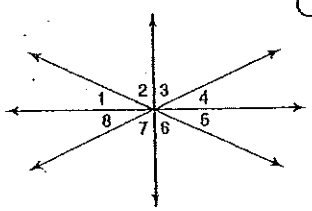
21. $m\angle 1 = 5x - 10$
$m\angle 2 = 3x + 36$
$l \perp m$



$m\angle 1 =$ _____ $m\angle 2 =$ _____

22. What theorem supports # 18?
23. What theorem supports #19?
24. What theorem supports #21?
25. What statement is formed by switching the hypothesis with the conclusion?
26. What is the statement called that disproves a conjecture?
27. If A is between X and P, then _____ + _____ = _____ by the _____ _____ Postulate.
28. Which statement is formed by negating the conditional? _____

Find the measure of each angle if m∠1 = 23 m∠2 = m∠3, and ∠3 and ∠4 are complementary.



29. $m\angle 2$
30. $m\angle 4$
31. $m\angle 6$
32. $m\angle 3$
33. $m\angle 5$
34. $m\angle 7$

(35) Given: $3 + 7(2x - 5) = 10$

Prove: $x = 3$

1)	1) Given
2) $3 + 14x - 35 = 10$	2)
3) $14x = 42$	3)
4) $x = 3$	4)